REMARKS

Response to the §102 Rejections of Claims 13-20

In the outstanding Office Action, the Examiner rejected claims 13-18 and 20 under 35 USC §102(b) as allegedly anticipated by U.S. Patent No. 5,963,800 to Augusto (hereinafter "Augusto") or U.S. Patent No. 6,787,402 to Yu (hereinafter "Yu").

Applicants respectfully traverse the Examiner's rejections, for the following reasons:

It has been well established that anticipation under 35 U.S.C. §102(b) requires that "*each and every element* as set forth in the claim is found, either expressly or inherently described, in *a single prior art reference*." Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631 (Fed. Cir. 1987).

However, in the present case, **neither the Augusto reference nor the Yu reference discloses each and every element as set forth in claims 13-18 and 20 of the present application**.

Claim 13, from which claims 14-18 and 20 depend, positively recites "an insulating region present atop said bottom Si-containing layer, said insulating region having at least one partial opening therein." Claim 13 further recites "a gate region in said partial opening, said gate region comprising two regions of gate conductor that are separated from vertical fin-shaped silicon-containing channel regions by an insulating film, said insulating film comprising a gate dielectric and having opposite vertical surfaces adjacent to the vertical fin-shaped silicon-containing channel regions."

First, **the Augusto reference fails to disclose an insulator region that is located atop a bottom Si-containing layer and has at least one partial opening therein**, as positively recited by claims 13-18 and 20 of the present application. In the outstanding Office Action, the Examiner asserted that Augusto discloses in Figure 3 an insulating region 5 that is located atop a bottom Si-containing layer 12 and has at least one partial opening therein (see Office Action, page 3, lines 20-21 and page 4, lines 1-2). Applicants respectfully disagree: layer 5 in Figure 3 of Augusto is labeled as a PMOS source, which is a semiconductor region, **not an insulator region**; further, layer 5 in Figure 3 of Augusto **does not contain any partial opening therein**. Therefore, the Examiner's assertion clearly contradicts the disclosure of Augusto and cannot be used to establish anticipation of Applicants' claimed invention by Augusto.

Second, **Augusto fails to disclose a vertical fin-shaped silicon-containing channel region**, as positively recited by claims 13-18 and 20 of the present application. Augusto discloses in Figure 3 a vertical MISFET device that have vertically arranged source region 5 or 7, channel region 3, and drain region 1, for defining a current flow direction that is vertical to the substrate wafer 25 (see Figure 3 of Augusto). However, the source/drain/channel regions 5/7, 3, and 1 disclosed by Augusto, although vertically arranged in relation to one another, are **not fin-shaped bodies**, and they **do not stand vertically on the substrate surface, either**. Therefore, the source/drain/channel regions 5/7, 3, and 1 disclosed by Augusto are **fundamentally different** from "a vertical fin-shaped silicon-containing body," as positively recited by claims 13-18 and 20 of the present application. In fact, nothing in Augusto provides any derivative basis for a vertical fin-shaped silicon-containing body.

Correspondingly, Augusto fails to disclose each and every element as set forth in claims 13-18 and 20 of the present application and therefore cannot anticipate the claimed invention as recited by such claims.

The Yu reference fails to disclose an insulator region that has at least one partial opening therein, as positively recited by claims 13-18 and 20 of the present application. In the outstanding Office Action, the Examiner asserted that Yu discloses an insulating region "having at least one partial opening therein" at column 3, lines 25-35 and 38-40 (see Office Action, page 4, lines 1-2). However, the disclosure by Yu at column 3, lines 25-35 and 38-40 relates only to an insulator layer 18, which **does not contain any partial opening therein** (see Figures 1-4 of Yu). Therefore, the Examiner's assertion clearly contradicts the disclosure by Yu and cannot be used to establish anticipation of Applicants' claimed invention by Yu.

Further, **the Yu reference fails to disclose a gate region that is located in a partial opening in an insulating region**, as positively recited by claims 13-18 and 20 of the present application. In the outstanding Office Action, the Examiner asserted that Yu discloses at column 3, lines 25-40 a gate region that is located "in said partial opening" in an insulating region (see Office Action, page 4, lines 2-3). However, the disclosure by Yu at column 3, lines 25-40 relates to formation of a gate material layer 26 **over an insulator layer 18 that contains no partial opening therein** (see Figure 4 of Yu). Therefore, the Examiner's assertion clearly contradicts the disclosure by Yu and cannot be used to establish anticipation of Applicants' claimed invention by Yu.

In summary, neither Augusto nor Yu discloses each and every element as set forth in claims 13-18 and 20 of the present application, and they therefore cannot anticipate Applicants' claimed invention as recited by such claims.

Moreover, nothing in Augusto or Yu teaches or suggests modification of the disclosed structures in such a manner that would yield Applicants' claimed invention as recited by claims 13-18 and 20 of the present application. Correspondingly, claims 13-18 and 20 patentably distinguish over

Augusto and Yu.

Response to the §103 Rejections of Claim 19

In the outstanding Office Action, the Examiner rejected claim 19 under 35 USC §103(a) as allegedly obvious over Augusto in view of U.S. Patent No. 5,315,144 to Cherne (hereinafter "Cherne") or U.S. Patent No. 6,656,824 to Hanafi et al. (hereinafter "Hanafi").

Claim 19 depends directly from claim 13 and therefore incorporates each and every limitation of claim 13.

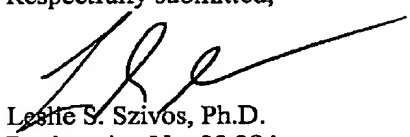
As mentioned hereinabove, **the Augusto reference is deficient** in disclosing: (1) an insulator region that is located atop a bottom Si-containing layer and has at least one partial opening therein, and (2) a vertical fin-shaped silicon-containing channel region, as positively recited by claim 13 of the present application. The applied disclosure of Cherne and Hanafi relates only to formation of silicide layers atop source/drain regions. Therefore, **Cherne and Hanafi cannot remedy the above-described deficiencies of Augusto**.

Correspondingly, claim 19 patentably distinguishes over the combination of Augusto, Cherne, and Hanafi.

CONCLUSION

Based on the foregoing, claims 13-20 as amended herein are in condition for allowance. Issuance of a Notice of Allowance for the application is therefore requested. If any issues remain outstanding, incident to the formal allowance of the application, the Examiner is requested to contact the undersigned attorney at (516) 742-4343 to discuss same, in order that this application may be allowed and passed to issue at an early date.

Respectfully submitted,



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